

CHAPTER V ENABLERS

"It is very necessary to attend to all this detail and to trace a biscuit from Lisbon into a man's mouth on the frontier and to provide for its removal from place to place by land or by water, or no military operations can be carried out."

The Duke of Wellington, 1811

1. General

High performance distribution support to joint force operations requires robust enablers and continuous improvement and innovation. Enablers can be both physical, such as technology and equipment, and procedural, with streamlined, efficient policies, processes, and business practices. Defense reform initiatives have emphasized the integration of modern technology and business practices into DOD operations reducing policy and procedural barriers to change. The immediate and tangible impact of these distribution enablers is to provide combatant command and Service distribution planners and operators with a toolbox of solutions for global distribution operations. Distribution enablers for joint force operations are categorized as distribution facilities and infrastructure, distribution-related joint C4I and information (including total asset visibility) systems, DOD and commercial transportation programs, modern procurement methods, and military standard logistic systems and procedures.

2. Facilities and Infrastructure

Global distribution operations rely on modern and efficient military and civilian facilities and supporting infrastructure. Facilities include the real estate and physical plant, such as buildings, equipment, and information management systems to support operations. Supporting infrastructure, including ports, roads, airfields, railroads and railheads, and staging areas, is also vital to global distribution operations. The quantity and quality of these facilities and infrastructure, particularly OCONUS, may not always be adequate. Regardless of existing facilities, the net capabilities of US forces must be sufficient to provide force projection and forward presence worldwide. Global distribution operations leverage existing facilities and infrastructure at commencement of operations. Initially, distribution operations may require the use of labor and/or equipment intensive methods to overcome facility and infrastructure inadequacies. Over the course of an operation, the condition of distribution facilities and infrastructure including essential ports, airfields and roads may be upgraded by US military engineer forces through the use of construction methods and techniques such as rapid runway repair, temporary bridging and bypasses, construction of pre-fabricated shelters and beddown construction. Major facility improvements are contracted commercial projects that require significant investment in both time and money and may not be feasible for short-term accomplishment when measured against the expected duration of campaigns or operations and distribution requirements. As discussed in Chapter IV, Distribution Execution,



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The Services have inherent capabilities to temporarily improve or upgrade infrastructure and facilities in support of global distribution operations.

1 acquiring access to the distribution facilities and infrastructure required to support
2 joint force operations is of primary concern. Actual ownership and operation of
3 these distribution assets is a secondary consideration so long as they meet net
4 global distribution system demands.

5
6 a. **Communications Infrastructure.** The Defense Information System
7 Network (DISN) is the DOD consolidated worldwide communications
8 infrastructure that provides end-to-end information transport for supporting
9 military operations, national defense C4I requirements, and corporate defense
10 requirements. DISN provides the transmission and switching of voice, data,
11 video, and point-to-point bandwidth services for wide area, local area,
12 metropolitan area, and long-haul networks. DISN uses available commercial
13 products and services, while providing DOD with the degree of network control
14 necessary to ensure rapid response to the warfighters. Sufficient
15 telecommunications capacity and priority to support logistic bandwidth
16 requirements are essential for successful global distribution operations.

17
18 b. **Transportation Infrastructure.** CONUS forces and military installations
19 require the facilities and infrastructure to execute distribution operations for joint
20 operations. Organic transportation infrastructure in CONUS consists of
21 ammunition ports, aerial ports, and limited surface transportation capability.
22 Commercial transportation infrastructure is heavily leveraged to support global
23 distribution operations. Planners must identify commercial transportation

1 infrastructure support required and work closely with the commercial industry to
2 ensure support.

3
4 **c. Depots, Arsenals, and Maintenance Facilities.** In addition to
5 transportation infrastructure, the network of defense and Service depots, arsenals,
6 and maintenance facilities provide the strategic distribution functions of supply
7 and maintenance. The Military Departments operate arsenals, maintenance
8 depots, and naval shipyards as well as ammunition plants and storage areas. The
9 Defense Distribution Center (DDC), a primary level field activity of DLA,
10 operates a physical network of Defense Distribution Depots which is a major
11 element of the DOD distribution system. These depots are located throughout the
12 world as depicted in Figure V-1.

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14 • The depots are responsible for providing DOD-owned commodities to all
15 branches of the Armed Forces and other agencies of the federal government
16 throughout the world. The depots accomplish this mission by conducting
17 physical distribution functions of receipt, storage, issue, packing,
18 preservation, freight consolidation and shipping, ITV, and redirecting enroute
19 shipments when required.

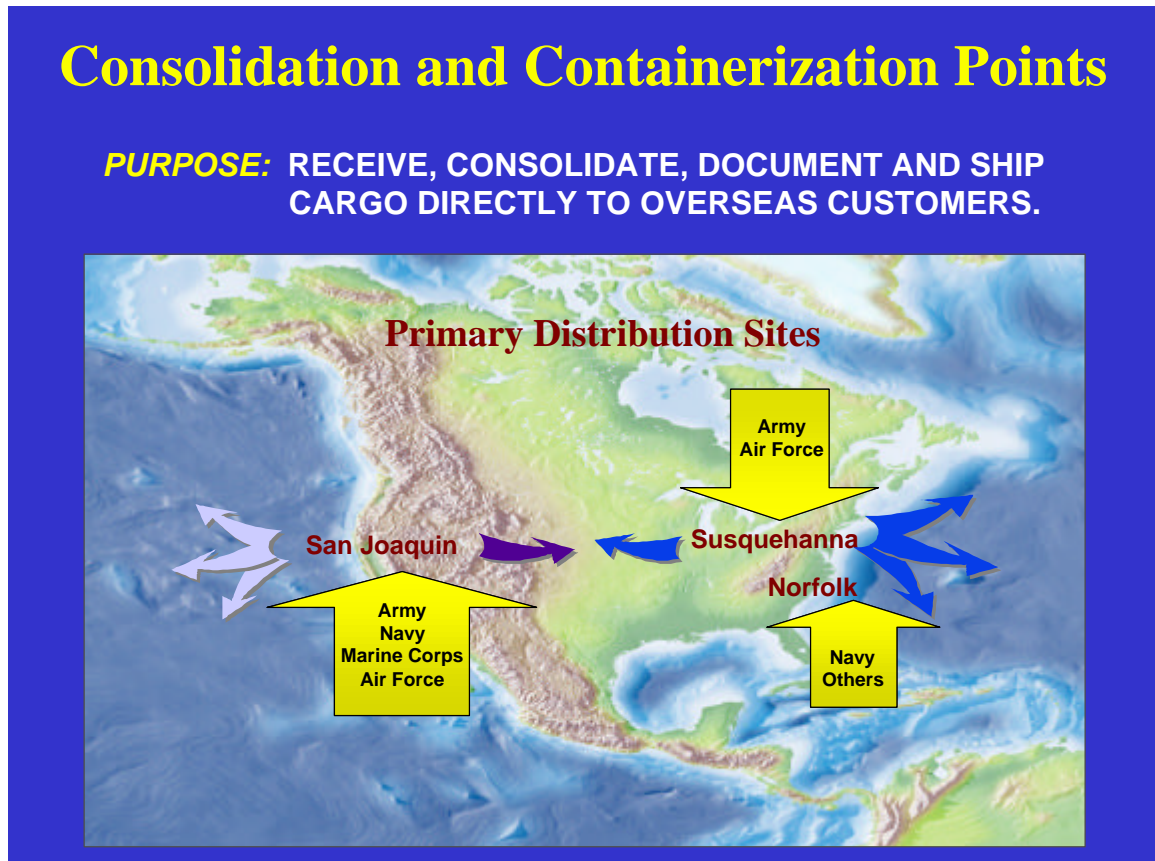


Figure V-1. Defense Distribution Depots

- Within this network of depots there are two primary distribution sites (PDSs): Defense Depots San Joaquin, CA, and Susquehanna, PA. These sites provide strategic support to CONUS and OCONUS customers throughout the world. San Joaquin focuses on Pacific customers and Susquehanna's focus is on customers located in Europe, North Africa, Southwest Asia, and Central and South America. The PDSs operate consolidation and containerization points (CCPs), as illustrated in Figures V-2 and V-3, to consolidate materiel from other DDC depots, prime vendors, GSA, and other government supply sources for OCONUS shipment. The CCPs build pallets for air shipment via military air lines of communications (ALOC) and commercial air lines of

1 communications (COMALOC) and containers for surface intermodal
2 movement.

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Figure V-2. Consolidation and Containerization Points

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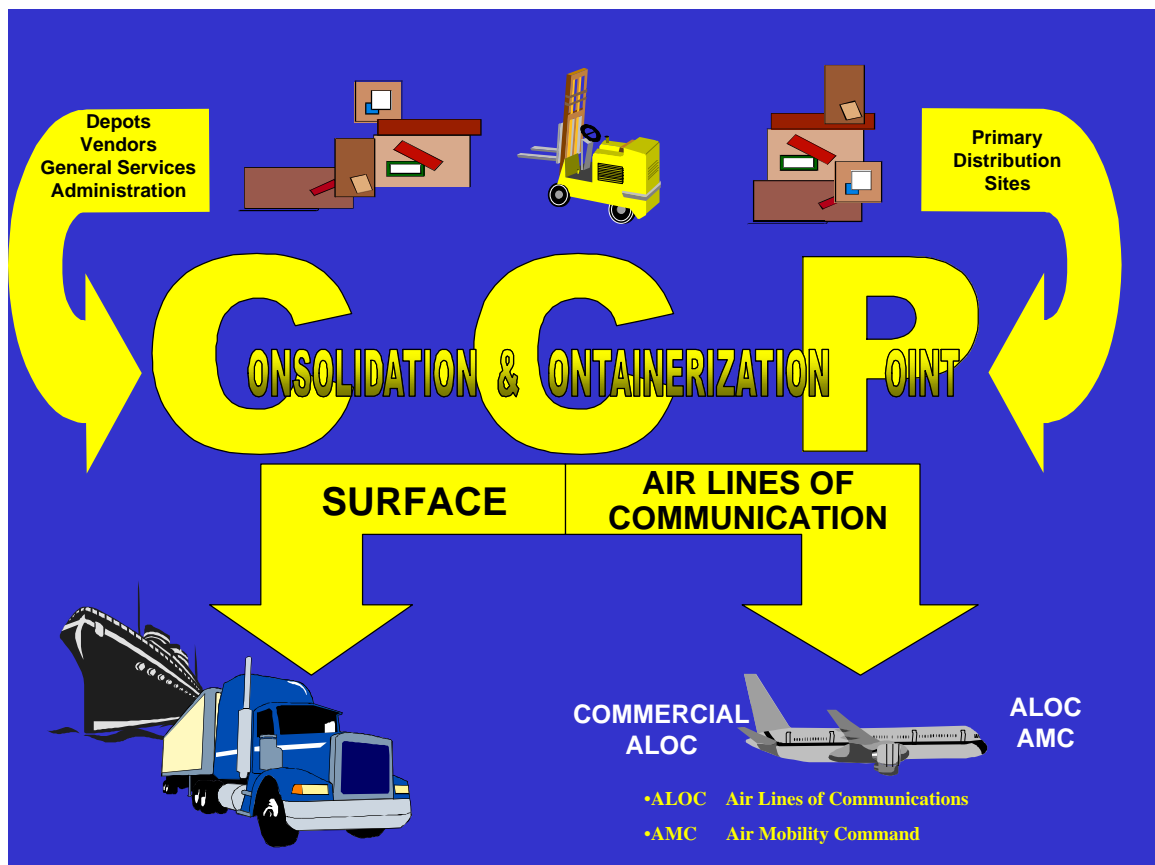
7 d. **OCONUS Facilities and Infrastructure.** Forward presence forces benefit
8 from access to distribution facilities and infrastructure comparable to that
9 available to CONUS-based forces.

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11 • **OCONUS Distribution Depots.** There are three forward DDC
12 distribution depots located in Hawaii, Japan, and Germany as depicted in
13 Figure V-1. These depots offer opportunities to forward-position stock for

1 OCONUS customers. Replenishment are originated or forwarded to the
2 CONUS PDSs for consolidation and transportation to OCONUS depots.
3 These depots enhance the in-theater distribution system by forward stocking
4 high usage items closer to the theater of operations enabling parts and supplies
5 to be distributed in a more timely manner.

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Figure V-3. Consolidation and Containerization Point

11 • **OCONUS Seaports and Airports.** PODs in the supported theater are the
12 points from which materiel exits the strategic lift phase of global distribution
13 and enters the theater distribution system. OCONUS ports can be the most

1 constraining segment of all facilities affecting global physical distribution
2 channels. Selection and operation of port facilities is critical to distribution
3 support of joint forces. Port capabilities, facilities, physical security, and
4 proximity to adequate road, rail, inland waterways, and pipelines are
5 important factors in port selection. The true measure of port effectiveness is
6 throughput, calculated through evaluation of the combined factors of
7 facilities, labor, material handling equipment, and connectivity to other
8 transportation infrastructure and information systems. MTMC Traffic
9 Engineering Agency, USTRANSCOM'S Joint Intelligence Center for
10 Transportation, MSC and AMC are the primary DOD agencies that determine
11 and assess port throughput and capabilities.

12
13 •• **SPODs.** The shift from strategic sealift to theater distribution
14 capabilities using intra-theater highway, rail, barge, and pipeline occurs at
15 SPODs. Seaport adequacy is based on physical considerations that are
16 often difficult to improve in the short term. Navigability, channel depths,
17 numbers and sizes of ship berths, intermodal cargo handling equipment,
18 and explosive handling limitations are significant factors that will affect
19 materiel throughput. Another significant consideration is the impact of
20 simultaneous commercial transportation, industrial operations, and other
21 activities in the port area. Expansion of fixed port facilities by US forces
22 requires a long lead-time and significant resources. Another alternative,
23 much faster to implement, is to augment inadequate SPODs through the

1 employment of JLOTS capabilities until other infrastructure enhancements
2 can be realized.

3
4 •• **APODs.** The strategic airlift interfaces with the theater
5 distribution system, either intra-theater airlift or surface transportation, at
6 APODs. Factors such as runway length and weight bearing capability,
7 taxiway systems, ramp space, material handling equipment and personnel,
8 aircraft servicing and maintenance, navigation aids, and communications
9 systems affect maximum aircraft on the ground and throughput capacity of
10 aerial ports. Again, a significant consideration in determining capabilities
11 of an APOD to support global distribution operations is the effect of
12 commercial transportation, industrial operations, and other activities in the
13 port area. Construction or rehabilitation efforts can overcome some
14 APOD shortcomings.

15
16 • **Host Nation Distribution Infrastructure Support.** US forces frequently
17 operate in areas, or require en-route support, necessitating reliance on HN
18 resources to successfully execute global distribution operations. Preexisting
19 multilateral joint logistic support plans and other similar joint support plans
20 can serve as useful tools in identifying committed infrastructure support
21 capabilities of the HN. HN agreements, such as SOFAs and multinational
22 and/or bilateral agreements negotiated before crises arise, facilitate needed
23 access to HN resources. Where these agreements do not exist they must be

1 created. HN coordination should be centralized as much as possible to
2 effectively use the assistance provided by the HN and other nations in the
3 region. The combatant commander should address all HN sensitivity issues as
4 early as practicable to ensure that theater distribution operations are not
5 adversely affected or create obstacles that affect strategic distribution
6 operations. Most operations require awareness to creating competition with
7 the local population or government for scarce distribution-related facilities.
8 Clearance for convoys, air and rail movement, and hazardous materiel may be
9 required and are examples of items that should be coordinated in advance of
10 anticipated operations.

11

12 **3. Command, Control, Communications, Computers, and Intelligence** 13 **Components**

14

15 C4I support to the global distribution system is vital to planning, initiating,
16 conducting, sustaining, and protecting a successful joint operation. These
17 capabilities support the communications and information networks of global
18 distribution. Responsive C4I allows combatant commanders and their staffs to
19 initiate, direct, monitor, query, and manage global distribution information
20 relative to their operations. Without on demand communications, this doctrine
21 cannot be executed. In addition to the DISN, the following major C4I systems are
22 essential enablers for global distribution operations:

23

1 a. **Defense Message System (DMS).** DMS is an integrated common-user,
2 writer-to-reader organizational and individual messaging service accessible from
3 DOD locations worldwide, tactically deployed users, and other designated
4 government users, with interfaces to multinational users and defense contractors.
5 DMS is a military communications platform to enable distribution information to
6 flow between customers and providers.

7
8 b. **Global Command and Control System (GCCS).** GCCS is a
9 comprehensive automated C4I system designed to improve the JFC's ability to
10 manage and execute joint operations. GCCS is the primary means of C2 for joint
11 operations. GCCS forms an information grid that incorporates procedures,
12 reporting structures, automated information processing systems, and
13 communications connectivity to provide the information necessary to effectively
14 plan and execute global distribution operations.

15
16 c. **Global Combat Support System (GCSS).** GCSS provides universal access
17 to information and interoperability of that information, including distribution
18 information, across combat support and C2 functions. GCSS receives a host of
19 logistic information systems, including planning systems, distribution operating
20 systems, and visibility systems that are all critical to global distribution
21 operations.

22

4. Information Systems

The information network of global distribution system has numerous information systems to enable planning distribution functions, execution of distribution operations, and that provide visibility over the distribution process. Distribution planning systems enable balance and agility in distribution operations and promote warfighter confidence in distribution support plans. Distribution execution systems enable velocity, integration, and efficiency. Visibility systems support control, security, and precision and further enhance confidence in distribution operations.

a. **Planning Systems.** Major distribution planning systems include:

- **Integrated Consumable Item Support (ICIS).** The ICIS system identifies specific critical items and their affected weapons systems, calculates when stock will be exhausted and guides inventory investment decisions to support contingencies. The model provides sourcing information for DLA-managed items to DLA management, the Services, and the unified commands to be used as a piece of the larger wartime sustainability picture. ICIS identifies inventory sources for Class I, II, III, IV, VIII, and IX items. The ICIS sustainment metrics and factors are linked to the Services' readiness based models. These links allow the Services to consider DLA managed items in determining operational availability of critical weapon systems. ICIS

1 also identifies critical items with the greatest potential to adversely affect joint
2 operations.

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5 *Information systems provide the key enabler for managing global distribution velocity and precision.*

6

- 7 • **Joint Force Requirements Generator II (JFRG II).** JFRG II is a
8 computer based planning system that accelerates the development, sourcing,
9 analysis, and refinement of plans resulting in executable JOPES time phased
10 force and deployment data (TPFDD). Planning response time is enhanced
11 through interactive design and data base methodologies. Extensive reference
12 files and code tables are rapidly accessible to the planner. A variety of reports
13 and graphs assist in the analysis and refinement of feasible plans. JFRG II is

1 applicable to deliberate, CAP, and exercise distribution planning.

2

3 • **Joint Flow and Analysis System for Transportation (JFAST).** JFAST

4 is an analytical tool for making detailed estimates of resources required to

5 transport military forces (including cargo, personnel, and sustainment) and

6 materiel during joint operations. JFAST is used as a planning and forecasting

7 tool for deliberate planning and CAP. The system determines the

8 transportation feasibility of the TPFDD (from origin through arrival at the

9 POD) and generates summary data via charts, tables, maps, and other visual

10 aids for use by senior leaders. JFAST determines closure dates, congestion

11 points, lift utilization, and shortfalls. JFAST products include delivery

12 profiles and lateness analysis, required lift by day versus lift available, and

13 port workload by level of activity based on capacity.

14

15 • **Enhanced Logistics Intratheater Support Tool (ELIST).** ELIST is an

16 analytical tool that simulates, from a transportation perspective, the

17 deployment of forces within CONUS (port-to-port) or theater (POD-to-

18 destination). It helps planners analyze and develop COAs that ensure forces

19 arrive at particular in-theater destinations on specific dates. ELIST models

20 organic and HN transportation assets and transportation infrastructure. ELIST

21 performs detailed intratheater deployment studies to analyze effects of force

22 modernization and new force structures and changes to the DTS and to check

23 transportation feasibility of contingency operations. ELIST enables planners

1 to model the impact of theater transportation infrastructure limitations
2 (through combat loss, weather, or limited HN access).

3

4 • **Consolidated Air Mobility Planning System (CAMPS).** CAMPS
5 supports AMC planners with an integrated system to support airlift and tanker
6 planning, scheduling, analysis, allocation, and development of mission
7 support requirements. CAMPS provides capabilities for deliberate planning
8 and CAP allocation management and mission support.

9

10 • **Transportation Analysis, Modeling, and Simulation (TAMS).** TAMS
11 provides USTRANSCOM planners oversight and direction of transportation
12 modeling and simulation capabilities that support end-to-end transportation.
13 TAMS ensures integrated end-to-end modeling and simulation capability for
14 the entire DTS, to include: support for execution, exercises, analysis,
15 wargaming, and training. TAMS provides an integrated source -to-destination
16 capability for transportation feasibility analysis, programmatic analysis, and
17 wargaming.

18

19 • **Command and Control Information Processing System (C2IPS).**
20 C2IPS is used by AMC to plan, schedule, execute, and monitor airlift and air
21 refueling missions at the wing level. It reports status, capability, and
22 limitations of aircraft, aircrew, and resources.

23

1 **b. Distribution Execution Systems.** Major distribution execution systems
2 include:

3

4 • **Inventory Control Point AISs.** AIS are business systems used by
5 materiel and item managers to control on-hand wholesale and retail assets by
6 location and condition code; manage wholesale assets due in from
7 procurement and depot-level repair, and calculate stocking levels and
8 positioning.

9

10 • **Distribution Standard System (DSS).** DSS is the DOD standard AIS
11 that manages the flow and storage of stock at DLA distribution depots. DSS
12 provides enhanced tools for improving inventory accuracy and control,
13 improves the operating efficiency of depots, and supports total asset visibility
14 (TAV) by continuously updating JTAV.

15

16 • **Transportation Coordinator's Automated Information for Movement**
17 **System II (TC-AIMS II).** TC-AIMS II is a DOD AIS that will integrate
18 fielded Service unique transportation systems into a single AIS to provide
19 timely and accurate passenger and cargo movement information and control
20 during force deployments. TC-AIMS II will provide day-to-day traffic
21 management capabilities to support deployment, redeployment, and
22 sustainment of US forces worldwide.

23

- 1 • **Global Decision Support System (GDSS).** GDSS is the worldwide C2
2 system for execution of strategic airlift and air refueling during peacetime,
3 contingencies, and war. GDSS is used to monitor and manage all operational
4 DOD air mobility missions throughout the world, including all organic,
5 commercial, and air refueling missions.
6
- 7 • **Global Air Transportation Execution System (GATES).** GATES is the
8 fully integrated air transportation system used to document cargo and
9 passenger movement.
10
- 11 • **Integrated Command, Control, and Communications (IC3) System.**
12 IC3 is the MSC C2 system to manage sealift transportation. IC3 provides C2
13 and visibility of sealift assets, cargo, and POL and interfaces with other
14 information systems, such as GTN, GDSS, and GCCS.
15
- 16 • **Worldwide Port System (WPS).** WPS is the common-user port
17 documentation and cargo accountability system used to support DOD's
18 worldwide sealift requirements. WPS provides visibility data to the GTN and
19 transmits necessary advance cargo related information directly to the theater
20 for planning purposes. Theater port personnel and movement control
21 organizations utilize the advance information to plan and manage discharge,
22 staging, and onward movement of unit equipment and sustainment materiel.
23

- 1 • **Integrated Booking System (IBS).** IBS is the business system
2 supporting the movement of unit and sustainment cargo by surface. The
3 system offers continuous access to ocean shipping capabilities. It provides
4 booking data and ship schedule information for both unit and sustainment
5 cargo to the GTN and WPS. Through interfacing with these systems,
6 critically needed transportation data is available to outside agencies
7 responsible for C2.
8
- 9 • **Conus Freight Management (CFM) System.** CFM is the business
10 system that connects military shippers to CONUS land transportation
11 capabilities. It does so by automating the booking, rating, and routing
12 process.
13
- 14 • **Asset Management System (AMS).** AMS is used to manage DOD
15 freight cars, Army-owned ISO containers, and leased ISO containers for all
16 Services. It provides MTMC the AIS capability to manage all aspects of the
17 DOD interchange freight car fleet and the Army common user container
18 fleets.
19
- 20 c. **Visibility Systems.** Asset visibility systems enable the capability to collect
21 and maintain information on the location, status, and movement of materiel in the
22 global distribution system. ITV is the ability to track the identity, status, and
23 location of DOD unit and non-unit cargo, passengers, and medical patients from

1 origin to the destination, during joint operations. Process visibility systems
2 enable the monitoring and measurement of the elements of the distribution
3 process. The programs and systems described below facilitate visibility and
4 enable the supported commander to maintain effective control.

5
6 • **Joint Total Asset Visibility.** JTAV is the primary AIS for DOD's TAV
7 concept. It is the joint logistic system which provides users with timely and
8 accurate information on the location, movement, status, and identity of units,
9 personnel, equipment, and supplies. It also facilitates the ability to act upon
10 that information to improve overall performance of the global distribution
11 system. JTAV includes in-process, in-storage, and in-transit business
12 processes.

13
14 • **Global Transportation Network.** GTN is the USTRANSCOM global
15 transportation management information system. GTN is the DOD
16 authoritative sources for ITV. GTN gathers data from a number of DOD,
17 Service, defense agency, and commercial transportation systems. GTN
18 consists of modules that support current and future plans, ITV, and tracking of
19 medical patients. The ITV module will be DOD's comprehensive data base of
20 unit and non-unit shipment information including military and vendor-sourced
21 shipments; commercial carrier-generated shipment status information;
22 booking information; passenger reservations and manifests; personal property
23 shipment information; and vessel and aircraft scheduling data.

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- **Logistics Information Processing System (LIPS).** LIPS is the DOD's central repository for information on the status of requisitions maintained by the Defense Automatic Addressing System Center (DAASC). The data in LIPS originates with requisitions and other supply-related transactions that flow among DOD units, ICPs, and sources of supply through the Defense Automated Addressing System (DAAS). LIPS supports visibility processes through its capability to capture requisition and requisition related data. This includes traditional military distribution transactions and new business practices such as inter-Service lateral distribution, intra-Service retail-to-retail orders, and retail-to-PV orders. LIPS supports GTN and JTAV by providing requisition and shipment data.
- **Logistics Metrics Analysis Reporting System (LMARS).** LMARS is a DOD system that captures and measures the performance of the distribution elements as material flows through the commodity supply chains. LMARS is populated with information from the MILSTRIP and MILSTRAP transactions that flow through DAAS. LMARS reports response time at specific points in the distribution process. It is used as an assessment tool by DOD agencies and the Services to measure logistic response time and assess distribution system performance.
- **Automatic Identification Technology.** AIT captures identification

1 information for individual items of materiel and materiel that has been
2 consolidated for shipment to enable visibility and distribution execution.
3 Information is captured electronically and passed to distribution-related AISs
4 where it is incorporated with other information relevant to that item or
5 shipment. This process reduces the laborious and error-prone manual
6 component of traditional data entry, improves accuracy, reduces physical
7 processing time, and achieves precise asset visibility at all stages of the global
8 distribution system. Each node of the DOD global distribution system reads
9 and writes AIT devices. Major AIT media types and their typical DOD
10 applications are:

11

12 ●● **Bar Codes.** A bar code is an array of parallel, narrow, rectangular
13 bars and spaces that represent a group of characters in a particular
14 symbology. The bars and spaces are arranged in an order defined by the
15 symbology. Bar codes are applied on labels, paper, plastic, ceramic, and
16 metal by a variety of marking techniques.

17

18 ●● **Two-dimensional (2D) Bar Code.** Two-dimensional bar code is a
19 generic term usually used to refer to larger capacity bar codes that can
20 store as many as 1850 characters and are able to sustain considerable
21 damage and still be read. Their durability, as well as additional data
22 capacity, can provide options for increased efficiency and effectiveness of
23 many DOD operations.

1

2 •• **Optical Memory Cards (OMCs).** OMCs are credit card sized

3 data storage devices that can store large volumes of information using a

4 laser beam. OMCs are routinely used by the Army, USMC, and DLA as

5 part of the Automated Manifest System (AMS) to transfer depot supply

6 and transportation data to supply support activities for receipt processing,

7 discrepancy reporting, and reconstituting shipment data and

8 documentation. The cards accompany air pallets and seavan containers

9 between selected depots and supply support activities.

10

11 •• **Radio Frequency Identification (RFID).** RFID uses small

12 electronic devices known as tags or transponders that can read or write

13 information using radio frequency (RF) energy. They range from

14 permanent ID information tags to reuseable memory tags. RFID devices

15 provide operators a means to remotely identify, categorize, and locate

16 people and materiel automatically and send data to AISs. RFID is used to

17 capture individual as well as consolidated shipment information. The

18 DOD maintains a capability at selected nodes to support peacetime

19 requirements and provide a base for expanding support during

20 contingency operations and exercises. A deployable capability is available

21 to support theater contingencies.

22

23 •• **Satellite-Tracking Systems.** Satellite-tracking systems provide a

1 capability to track near real-time location of vehicles, materiel, and
2 convoys and offer a digital communication capability to drivers. The
3 Defense Transportation Tracking System (DTTS) currently uses
4 commercial satellite-tracking technology to monitor shipments of arms,
5 ammunition, and explosives by commercial motor carriers in CONUS.
6 The Defense Transportation Reporting and Control System (DTRACS)
7 was derived from DTTS and is used to monitor military truck movements,
8 convoy operations, and rail movements. DTRACS feeds tracking
9 information to JTAV.

10
11 *DTRACS vignette here*
12

13 **5. Department of Defense and Commercial Transportation Programs**

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15 Transportation programs encompass all three elements of the DTS: air, land,
16 and sea. Airlift is generally the fastest but most costly means for distribution of
17 materiel from strategic sources to the operational level. The DOD relies on
18 commercial sealift to move over 90% of cargo during contingency operations.
19 Land transportation is the link between sources/storage points and strategic lift
20 and is typically the final transportation stage for delivery to the joint force
21 customer. Through partnering with customers and industry carriers,
22 USTRANSCOM has developed transportation enablers that facilitate global
23 distribution. These enablers are:
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1 *For more information on the Defense Transportation System, see JP 4-01, "Joint*
2 *Doctrine for the Defense Transportation System."*

3
4 a. **Airlift Enablers.** Airlift enablers are:

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6 • **Airlift Channels.** Channel airlift missions support global distribution
7 operations over established worldwide routes (combatant command or
8 Service-validated) that are served by scheduled DOD aircraft under AMC
9 control or commercial aircraft contracted and scheduled by AMC. These
10 missions provide requirements, frequency, and express airlift services to meet
11 customer needs. AMC provides channel service from APOEs to APODs.
12 AMC establishes requirements channel airlift missions to support service
13 between two points on a recurring basis, with actual movements dependent
14 upon the volume of traffic. Frequency channel airlift missions are established
15 when traffic volume does not support the desired frequency of service. These
16 channels support operational necessity and quality of life requirements in
17 remote areas. Airlift missions operate daily from CONUS APOEs to
18 OCONUS APODs. Additional missions are scheduled on spokes to move
19 materiel to other modes in the theater distribution system.

20
21 • **Special Assignment Airlift Missions.** Special assignment airlift performs
22 special pickup or delivery at points other than established AMC routes or
23 channels. Service is from origin to destination and the customer is billed for

1 aircraft positioning costs.

2
3 • **Theater Airlift Augmentation.** Under certain conditions, AMC strategic
4 and tactical aircraft may be temporarily attached to a geographic combatant
5 commander to provide additional theater airlift capability.

6
7 • **Operational Support Airlift (OSA).** OSA are organic airlift assets that
8 are an integral part of a specific Service, component, or major command and
9 primarily support the requirements of the organization to which they are
10 assigned. AMC trains, equips, and operates all CONUS-based OSA air
11 mobility assets until they are assigned or attached to a geographic combatant
12 commander. During a contingency or major operation, a number of these
13 shorter range airframes would normally be provided to a JFC to create or
14 supplement the theater's air mobility capability. In contingencies or war, OSA
15 missions can provide priority movement of personnel and cargo with time,
16 place, or mission-sensitive requirements.

17
18 • **Commercial Airlift Augmentation.** Commercial airlift augmentation
19 capabilities include both AMC-controlled and contracted airlift to increase the
20 agility and flexibility that airlift provides to global distribution.

21
22 •• **Charter.** Category A is a contract with the commercial air carrier
23 industry allowing cargo to be individually waybilled between CONUS and

1 overseas stations or between overseas stations. Category B is an AMC-
2 procured planeload charter on commercial aircraft. Cargo moves in full
3 planeload lots on other than a carrier's regularly scheduled commercial
4 flights.

5
6 ●● **Civil Reserve Air Fleet.** The DOD uses the contractually
7 committed capability of commercial air carriers to augment the military
8 airlift capability of AMC to satisfy DOD airlift requirements. CRAF can
9 be incrementally activated by USCINTRANS with approval of the
10 SecDef in three stages in response to defense-oriented situations, up to and
11 including a declared national emergency or war, to satisfy DOD airlift
12 requirements. When activated, CRAF aircraft are under the tactical
13 control of USCINTRANS while remaining a civil resource under the
14 operational control of the responsible US entity or citizen.

15
16 *For more information on CRAF and its activation stages, refer to JP 4-01.1,*
17 *“JTTP for Airlift Support to Joint Operations.”*

18
19 ●● **Air Mobility Express (AMX).** During a contingency, the vast
20 majority of airlift sustainment will move on channel missions. However,
21 USTRANSCOM is prepared to establish, at the request of the supported
22 combatant commander, an express service to move combatant commander
23 designated high priority items into the AOR. The supported combatant

1 commander will direct what portion of CJCS-allocated strategic lift will be
2 used for AMX and will allocate space on express aircraft by pallet
3 positions to each joint force component. For AMX to be effective, the
4 supported combatant commander must dedicate theater distribution
5 capabilities to deliver AMX cargo from the APOD to final destination at
6 an “express” level of service.

7
8 •• **Worldwide Express (WWX).** WWX is the federal government’s
9 time-definite, door-to-door commercial express package service for high
10 priority packages weighing 150 pounds or less. DOD partnered with GSA
11 to leverage industry for this international express delivery service.
12 Features of the service include: door-to-door pick up and delivery; time-
13 definite delivery; customs clearance; and ITV through the GTN. The
14 WWX web site is <http://public.scott.af.mil/hqamc/wwx/wwx.htm>.

15
16 •• **Air Tenders.** Air tenders are voluntary or negotiated offers by
17 qualified CRAF carriers to provide transportation services at specific rates
18 that are negotiated for each traffic lane (established air route). Customers
19 negotiate directly with carriers to establish or modify rates, charges, rules,
20 and accessory services. Tenders must be approved by AMC prior to use.
21 Service under tenders is based on commercial carrier capabilities into
22 geographic areas or lanes. A wide variety of service options exists and the
23 shipper has maximum flexibility to choose a carrier based on cost and

1 performance. Service includes door-to-door, counter-to-counter, door-to-
2 counter, and customer drop off/pickup.

3
4 •• **GSA Domestic Express Small Package Program** is air and/or
5 surface service for domestic overnight or second day delivery for packages
6 up to 150 pounds shipped to destinations more than 500 miles from origin.
7 MTMC is the DOD point of contact for this GSA service contract.

8
9 •• **Air Line of Communication/Commercial Air Line of**
10 **Communication (ALOC/COMALOC).** ALOC shipments are single
11 consignee full air pallet shipments consolidated at DLA CCPs and trucked
12 to AMC APOEs for air shipment to designed OCONUS military activities.
13 The COMALOC program moves consolidated air pallets under Category
14 A contracts with commercial air carriers from the CCPs directly to the
15 recipient, bypassing AMC aerial ports.

16
17 •• **Premium Service Program.** Premium service is a DLA storage
18 and transportation arrangement that provides materiel managers time-
19 definite delivery and high-speed distribution by placing high-value or
20 critical materiel in a commercial storage depot co-located with a
21 worldwide air parcel carrier hub. Premium service offers door-to-door
22 delivery in CONUS within 24 hours of order receipt and 48 hour in-
23 country delivery OCONUS.

1

2 **b. Sealift Enablers.** Sealift is the least expensive method of transporting
3 materiel to OCONUS locations. Sealift offers virtually unlimited capacity with a
4 single ship carrying as much as 130 large cargo aircraft. Historically, 90% of
5 joint force materiel is transported by sealift. Sealift is the fastest and most cost-
6 effective method of transporting large quantities of material. There are a variety
7 of capabilities that enhance sealift support to global distribution operations.

8 These enablers are:

9

10 • **Dry Cargo Operations.**

11

12 •• **Controlled Fleet.** MSC has a fleet of dry cargo ships to satisfy
13 roll on/roll off (RO/RO) and long-term cargo lift requirements that cannot
14 be filled by US flag commercial liner operators. The fleet is sized based
15 on the forecast of special category and exercise cargo, by type and route,
16 which cannot be carried by regular commercial services.

17

18 •• **Commercial Maritime Industry.** MTMC universal service
19 contracts (USCs) are established with the ocean carrier industry for ocean
20 and intermodal transportation services for the movement of cargo in the
21 DTS worldwide at reduced rates. Where USC services are not available,
22 or do not meet the particular customer's service requirements, Special or
23 Dedicated Service contracts are established by MSC. All agreements and

1 long term contracts are with US flagged carriers, preferably those
2 participating in the VISA program, unless such service is not available.
3 Use of foreign flagged vessels is permitted if US flagged service is not
4 available to meet sealift requirements. USC service is from SPOE to
5 SPOD for breakbulk and from origin to destination for container cargo.
6 Delivery points for special and dedicated service are based on the terms of
7 the individual contract.

8
9 •• **Voluntary Intermodal Sealift Agreement (VISA).** VISA is the
10 primary sealift mobilization program that was developed through a unique
11 partnership between the DOD, the DOT, and the commercial sealift
12 industry. VISA is an intermodal, capacity-oriented program vice a ship-
13 by-ship oriented program. It provides contractually committed, time-
14 phased, sealift capability to meet DOD contingencies when commercial
15 service is not adequate to meet OPLAN requirements for joint operations.
16 The worldwide shipping services provided by these commercial carriers
17 provides extensive and flexible capabilities to the DOD. VISA provides
18 the process for the DOD and industry to develop flexible concepts of
19 operations for contingency sealift in support of combatant commander
20 OPLANs. The majority of the dry cargo fleet is enrolled in VISA. The
21 types of ships enrolled include containerships, large medium speed roll-
22 on/roll-off (LMSR) ships, Lighter Aboard Ship (LASH) vessels,

combination RO/RO and container ships, heavy lift ships, breakbulk ships, and tugs and barges.

- **Combat Logistics Force.** The CLF consists of active fleet and MSC controlled ships which are tasked with providing underway replenishment to deployed fleet units.

- **MSC Petroleum Tanker Fleet.** The MSC petroleum tanker fleet is a fleet of chartered or contractually operated ships providing worldwide point to point movement of DOD bulk petroleum products. Primary customers are the DLA DESC and the Navy. Service can be from, to, and between commercial sources or storage locations; military base storage sites, and for special delivery to Navy ships at sea.

- **Contingency Support Fleet.** The contingency support fleet is composed of four categories of vessels: fast sealift ships (FSS), LMSR ships, afloat prepositioning force (APF) and the RRF. All are strategic sealift resources owned and operated by MSC that provide rapid response and worldwide strategic prepositioning. These assets and capabilities are used to satisfy exercise, surge, and contingency requirements only and cannot be used for routine movement of peacetime cargo.

- **Fast Sealift Ships.** Eight FSSs, with more than 30 knot capability, together can transport the equipment for one Army mechanized or

1 armored division. Each FSS carries the equivalent of more than 130 C-5
2 loads of cargo.

3
4 •• **Large Medium Speed Ro/Ros.** These ships each carry
5 approximately twice the amount of cargo of an FSS but are slower at 24
6 knots. They are also civilian contract operated and layberthed on the US
7 east and Gulf coasts to be within a few days transit of their loading ports.

8
9 •• **Afloat Prepositioning Force.** APF ships provide mobile materiel
10 storage and delivery capabilities that defer the need for strategic lift (both
11 air and sea) and serve as a vital major source of inventory during the
12 critical early stages of joint force operations. The APF includes: Maritime
13 Prepositioning Force,. Army Prepositioned Stocks (APS-3), Navy,
14 Defense Logistics Agency, and Air Force Prepositioning Ships (NDAF).

15
16 •• **Ready Reserve Force.** The RRF maintains 91 ships in a reduced
17 operating status or a lay-up status by MARAD for use by DOD when
18 required. When activated, RRF ships will carry combat-surge and follow-
19 on cargo and fall under the OPCON of USTRANSCOM (exercised
20 through MSC). RRF ships are crewed by civilian mariners employed by a
21 MARAD contractor. Some of these vessels have unique features to
22 support logistics-over-the shore operations or JLOTS, where fixed-ports
23 may be inadequate, damaged, or nonexistent. The RRF outporting

1 program places some of the high readiness ships at commercial and
2 government layberths near their activation yards and load ports to improve
3 response time.

4

5 c. **Land Enablers.** Virtually all movement of forces and materiel begins and
6 ends with land transportation, regardless of the strategic lift method. MTMC
7 provides CONUS traffic management support for freight and passenger
8 movements on surface carriers, operates the Defense Freight Railway Interchange
9 Fleet of more than 1000 special use railcars, and administers the DOD highways,
10 railroads, ports, and intermodal programs for national defense. MTMC also
11 monitors the status of worldwide infrastructure, including ports, inland
12 waterways, and pipelines. MTMC coordinates force movement to seaports both
13 in the US and overseas, prepares the ports for ships and cargo, and supervises
14 loading operations. MTMC administers the Contingency Response (CORE)
15 program, serves as SPM to combatant commanders, and develops integrated
16 traffic management systems.

17

18

19 • **CONUS Commercial Resources.** The commercial transportation
20 industry has substantial capability available to meet the CONUS
21 transportation needs of the DOD across the range of military operations.
22 CORE supports the acquisition of domestic civil transportation resources
23 during military deployments. This voluntary program provides DOD
24 commercial transportation service support and priority for commercial

1 transportation prior to and during contingency and mobilization. CORE
2 supports resource acquisition for commercial transportation, coordinates
3 hazardous materials movement, provides liaison to the USCG for port security
4 support, and performs source identification for emergency lease and/or
5 purchase of commercial heavy equipment transporters.

6
7 •• **Guaranteed Traffic.** Guaranteed traffic programs consolidate
8 freight requirements for a geographic area into a single contract, lowering
9 transportation costs by awarding what had previously been numerous
10 individual freight contracts to the lowest cost carriers. Under the
11 guaranteed traffic program, carriers submit bids--called solicited tenders--
12 on traffic lanes. The successful bidder, based on an evaluation of service,
13 timeliness, and experience, becomes the primary carrier for the lane and
14 gets the first opportunity at all traffic.

15
16 •• **Dedicated Truck Delivery.** Dedicated truck delivery programs
17 enable time definite service supporting customers receiving numerous
18 shipments on a regular basis from DDC depots. Agreements are made to
19 deliver all cargo, regardless of priority or size, via regular truck service.
20 The delivery schedule is based on volume and can be every day or as little
21 as once a week. The depot and the customer determine the "best" delivery
22 schedule. Customers specify the receiving location and time of day for
23 delivery. Regular deliveries on a set schedule save transportation costs

1 and allow customers to schedule receiving workloads. Dedicated truck
2 arrangements are best suited for customers with consistent volumes of
3 cargo.

4
5 • **OCONUS Common User Land Transportation (CULT).** The
6 Department of Army is responsible for making CULT available for the other
7 Military Services in several overseas areas. Under CULT, land transportation
8 assets are normally under the OPCON of the combatant commander's Army
9 component commander who coordinates all planning and requirements for the
10 use of DOD-controlled land transportation equipment and facilities designated
11 common-use in theater. Service component commanders, however, maintain
12 control and authority over their Service-owned assets that are not designated
13 as common-use to ensure accomplishment of their mission. The Navy and
14 Air Force components provide organic land transportation support within their
15 installations and activities and submit peacetime requirements for common-
16 use theater or area transportation to the Army component for those theaters
17 where the Army has been assigned CULT responsibility. Wartime CULT
18 requirements are the combatant commander's responsibility and normally the
19 JMC or a component assigned the CULT mission will consolidate planned
20 wartime movement requirements for all component commands. Non-military
21 transportation resources can include HNS, multinational civil organizations,
22 indigenous commercial transportation providers, and third party logistic
23 organizations.

1

2 **d. Intermodalism and Containerization.** Global distribution efficiency is
3 heavily dependent on reducing intermediate node handling of materiel moving
4 through the distribution system. Intermodalism is the transfer of passengers or
5 transshipment of cargo among two or more modes of transportation.
6 Containerization facilitates and optimizes intermodal cargo movement by
7 reducing handling, increasing throughput opportunities, speeding onward
8 movement, increasing cargo security, and providing opportunities for improved
9 ITV. Preplanned containerization programs, which integrate materiel
10 management, storage, and transportation elements into tailored distribution
11 solutions for joint force materiel, have significant potential to increase intermodal
12 efficiencies within the theater. Increasing DOD's containerized cargo capability
13 and use at all levels is essential for efficient distribution support of joint
14 operations.

15

16 *For more information on intermodal transportation, see JP 4-01.7, "Joint*
17 *Tactics, Techniques, and Procedures for Use of Intermodal Containers in*
18 *Joint Operations."*

19

20 **6. Commercial Practices**

21

22 DOD has increased reliance on the commercial sector to perform specific or
23 multiple supply chain functions. These efforts bring the DOD more in line with

1 the performance and standards of successful commercial companies. Global
2 distribution operations have adapted a number of modern enablers to better
3 leverage commercial sector capabilities.

4
5 a. **Vendor Support.** Increased use of vendor capabilities is a major method of
6 increasing the value, velocity, and efficiency of distribution support to the
7 warfighter while also affecting the "footprint" of logistic support. DOD has
8 instituted a series of initiatives to increase the use of commercial practices and
9 distribution systems to satisfy materiel requirements. A common thread
10 throughout these initiatives is the increasing role of the commercial sector and the
11 corresponding reduction in "hands-on" DOD actions while continuing to maintain
12 or exceed logistic support standards. The transfer of government inventory and
13 distribution capabilities to vendors decreases requirements on organic military
14 assets. However, the potential exists for commercial distribution channels to
15 become constrained or restricted under wartime conditions, resulting in an influx
16 of commercial-origin materiel entering at a variety of points into the DOD
17 distribution system.

- 18
- 19 • **Prime Vendor.** PV is a vendor support process that provides commercial
20 products to regionally grouped military activities and federal customers from
21 commercial distributors using electronic commerce methods. The process
22 uses long-term contracts that set forth price, product, and delivery agreements
23 for a variety of goods. Customers order directly from the vendor and receive

1 materiel through the vendor's commercial distribution system. The
2 subsistence and medical PV programs, for example, take advantage of the
3 existing industry infrastructure and inventory to achieve rapid direct shipment
4 from vendor to customer. Receiving fresher, brand name products faster
5 increases customer satisfaction and significantly reduces DOD inventory
6 holding and distribution costs. PV programs are widely used in CONUS and
7 have been implemented OCONUS for selected commodities as described in
8 Chapter IV, Distribution Execution.

9
10 • **Virtual Prime Vendor (VPV).** VPV is a vendor support technique to
11 provide a complete logistic solution covering numerous commodity and
12 product lines to the customer. VPV's are integrators who makes use of
13 commercial and government inventories, contracts, and other means to
14 provide logistic support within DLA and the Services for both maintenance
15 and supply functions ranging from aircraft component repair to recruit
16 training uniform issue. VPV functions include forecasting requirements,
17 inventory control, engineering support, technical services, storage,
18 distribution, and any other functions required to satisfy customer's needs.
19 Like PV arrangements, VPV is also enabled by electronic commerce.

20
21 • **Direct Vendor Delivery.** DVD is a streamlined distribution method that
22 requires vendor delivery directly to a customer. DVD may improve customer
23 wait time and reduce the workload on the military distribution system. DVD

1 complements some or all of the global distribution system. As an added
2 benefit, DVD can eliminate DOD depot storage, shelf-life, and handling
3 problems inherent in some commodities, such as light bulbs (fragile), camera
4 and X-ray film (short shelf-life, special storage) and motor oil (hazardous
5 material storage and handling). Many of these DVD efforts include a
6 customer-transparent interface with MILSTRIP requisitioning procedures
7 through paperless ordering procedures.

8



9

10 *Civil augmentation programs free military manpower for other operational requirements.*
11

- 12 • **Civil Augmentation Programs.** Civil augmentation programs are an
13 enabler for peacetime planning for the use of civilian contractors in wartime

1 and other contingencies. These contractors can perform selected distribution
2 services to support US forces in support of DOD missions. Civil
3 augmentation programs are primarily designed for use in areas where no
4 bilateral or multilateral agreements exist. However, these programs may
5 provide additional support in areas with formal HNS agreements, where other
6 contractors are involved, or where peacetime support contracts exist. They
7 are also available during CONUS mobilizations to assist the CONUS support
8 base and help units get ready for deployment. The US Army Logistics Civil
9 Augmentation Program (LOGCAP) website is:
10 http://www.amc.army.mil/dcs_logistics/lg-ol/Logcap.html. The Air Force
11 Contract Augmentation Program (AFCAP), is administered by the Air Force
12 Civil Engineer Support Agency (AFCEA). The AFCEA website is:
13 <http://www.afcea.af.mil>. The Navy's civil augmentation program, called the
14 Construction Capabilities Program (CONCAP), provides construction support
15 during contingency operations and is operated by the Naval Facilities
16 Engineering Command, <http://www.navfac.navy.mil>.

17
18 **b. Government Purchase Card (GPC).** GPC is a commercial-style credit
19 card issued to an authorized unit user by a GSA-contracted financial institution.
20 Using GPC, purchases are made from commercial or selected government sources
21 by the cardholder up to the limit authorized for the user. The GPC reduces
22 requisition processing time and facilitates de-centralized buying by non-
23 procurement personnel.

1

2 **c. Contract Surge and Sustainment Requirements.** As the DOD continues
3 to downsize and reduce materiel inventories, new strategies exist to assure access
4 to commercial inventories and production capabilities to satisfy surge and
5 sustainment needs. In forming partnerships to develop surge and sustainment
6 capabilities with contractors, it may be essential to require efforts beyond, and
7 sometimes inconsistent with, contractors' customary business practices. This
8 necessitates the consideration of surge and sustainment requirements in business
9 arrangements and long term contracts. These requirements include processes to
10 ensure contractor capabilities actually exist and to validate those capabilities
11 through testing and DOD exercises.

12

13 **d. Internet Materiel Ordering.** The development of DOD Internet-based
14 materiel ordering systems have consolidated previously separated functions, for
15 both customers and providers, into fast, convenient electronic outlets that are
16 accessible worldwide and available around the clock.

17

18 • **DOD Electronic Mall (EMALL).** DOD has developed the Internet-based
19 EMALL in response to the needs of DOD customers. EMALL provides a
20 single point of entry for customers to find and acquire off-the-shelf, finished
21 goods from the commercial marketplace with point, click, and ship
22 government purchase card buying from commercial catalogs. The EMALL
23 allows customers to comparison shop across stores for price and best value

1 considerations. Benefits include cost savings through negotiated volume
2 discounts on commercial catalog prices, reduced logistic response time
3 through DOD ordering policies which complement traditional ordering
4 systems, and single view status on all orders.

6 **7. Defense Logistic Standard Systems and Procedures**

7
8 Defense Logistics Standard Systems (DLSS), formerly referred to as Military
9 Standard Logistics Systems (MILS), enable the use of computers in DOD logistic
10 processes. They provide procedures for communicating requirements, moving
11 material, and performing other tasks that enable logistic management function of
12 global distribution. The DLSS is composed of 13 systems and supporting address
13 directories. The DLSS functional procedures and supporting transactions are the
14 backbone of DOD logistic systems with over 70,000 customer activities and one
15 billion transactions transmitted annually. The Services, federal and DOD
16 agencies, defense contractors, and some allied governments use these standards.
17 DLSS is described in DOD 4000.25-M series manuals for additional information.

18 The major DLSS supporting global distribution are:

19
20 a. **Military Standard Requisitioning and Issue Procedures.** Military
21 Standard Requisitioning and Issue Procedures implements standard procedures,
22 methods, rules data elements, formats and time standards for the interchange of
23 logistic information related to requisitioning, supply advice and status, materiel

1 issue, shipment status, and materiel receipt, returns and redistribution. The
2 procedures govern the interchange of information for materiel commodities
3 between supported activities and inventory control and distribution systems in the
4 DOD and other participating organizations.

5
6 **b. Military Standard Transaction Reporting and Accounting Procedures**
7 **(MILSTRAP).** MILSTRAP implements standard methods, policies, procedures,
8 data elements, formats and time standards for the flow in inventory accounting
9 information. Procedures are applicable between inventory control points, stock
10 control activities, storage and depot sites and posts, camps, or bases.

11
12 **c. Military Standard Transportation and Movement Procedures**
13 **(MILSTAMP).** MILSTAMP, Volume I, implements DOD policy for the
14 movement of materiel to and from overseas locations. It prescribes standard data
15 elements, formats, rules, methods, and procedures required by the Services and
16 defense agencies to support the transportation data requirements for movement in
17 the DTS. Volume II implements DOD policy for the payment of transportation
18 services. It prescribes standard data elements, formats, rules, methods, and
19 procedures for the billing and payment of transportation charges for the
20 movement of cargo in the DTS.

21
22 **d. Military Standard Contract Administration Procedures (MILSCAP).**
23 MILSCAP implements uniform procedures, rules, formats, time standards, and

1 data elements for the interchange of contract-related information between and
2 among DOD component and contractors.

3
4 e. **Military Standard Billing System (MILSBILLS).** MILSBILLS
5 implements standard data elements, procedures, and formats to be used for billing,
6 adjustments, and collections for sales of materiel. This system provides the
7 standard procedures and formats used by the interfund billing system, serving as
8 an automated, seller-originated self-reimbursement process.

9
10 f. **Supply Discrepancy Report (SDR).** SDR implements rules, procedures,
11 and formats for reporting materiel discrepancies to issuing supply activities and
12 serves as the mechanism to document and report the status of corrective actions.

13
14 g. **Defense Automated Addressing System.** DAAS implements the concepts,
15 rules, and procedures for the transmission of computer readable logistic
16 documents to and from DAAS sites for automated routing between DOD logistic
17 system providers and customers.

18
19 h. **Department of Defense Activity Address Directory (DODAAD).**
20 DODAAD is the official DOD organizational identification and address file for
21 all logistic system participants.

22
23 i. **Uniform Materiel Movement and Issue Priority System (UMMIPS).**

1 UMMIPS is the DOD system that prescribes the standards for all DOD supply
2 and transportation transactions.

3

4 **8. Conclusion**

5

6 The enablers discussed in this chapter are tools available to enhance the global
7 distribution system. Continued innovation and improvement of facilities,
8 equipment, systems, and methods are vital to providing the velocity, visibility,
9 and value necessary for distribution support of joint forces. Most importantly,
10 integration of these enablers, using a supply chain management approach, is
11 essential to the optimization of the overall global distribution system. Future
12 enablers must apply the tenets and fundamentals of global distribution to ensure
13 they contribute to the overall effectiveness of a commodity supply chain and
14 result in net overall improvement in the global distribution system.

15

16